DOCUMENT INFORMATION

Please complete the following information when submitting a document to PDC.

Correspondence (CCN) No:	**Rev: N/A**
Document No: 24590-WTP-PER-CON-02-001	**Rev:** 0

Project Information (Check Applicable Box)

- ☒ Balance of Facilities
- ☒ Pretreatment
- ☒ HLW Vitrification
- ☒ LAW Vitrification
- ☐ Analytical
- ☐ External Interfaces
- ☐ Across all areas

Document is applicable to ALARA? ☐ Yes ☒ No

In general, any record that deals with Radiation, Radioactive Material, Occupational Dose, Dose Reduction, or Dose Rate are considered ALARA Records. (See 24590-WTP-GPP-SRAD-002, *Application of ALARA in the Design Process*, section 4.8 for additional guidance)

Additional Information for Correspondence

Subject Code(s) _____

Action Item Information. (This section does not apply to Meeting Minutes.)

☒ No Action Item within the correspondence

☐ Action(s): (Give a brief description of actions in the following space [optional])

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- ☐ Contains SENSITIVE Information

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Approver's position: Site Services Manager

Approver signature:

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INIT DATE

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This bound document contains a total of 6 sheets

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History Sheet

Rev	Date	Reason for revision	Revised by
0	9 Aug 2002	Initial issue; Issued For Permitting Use	W Melvin

Contents

1 Introduction

The purpose of this document describes how the River Protection Project – Waste Treatment Plant (WTP) project will satisfy Washington Administrative Code (WAC)173-303-640(3)(c) for the installation of secondary containment of tank systems, WAC-172-303-640(3)(c), (d) and (e) for installation of tanks and WAC-173-303-640(3)(c) through (f) and WAC-173-303-640(4)(b) and (c), for the installation and testing of tank system ancillary equipment.

Applicable Documents

ASME Section VIII	*Pressure Vessels*
ASME B 31.3 – 1996	*Process Piping*
ASME Section IX	*Qualification Standard for Welding and Brazing Procedures, Welders and Brazers and Welding and Brazing Operators*
AWS D1.1	*Structural Welding Code - Steel*
Chapter 173-303-640	*Dangerous Waste Regulations*. Washington Administrative Code

2 Description

2.1 Handling

Handling of tanks, bulk materials sub-assemblies and other components that, when installed, will constitute the secondary containment, tanks and tank ancillary equipment systems will be handled in strict compliance to project field materials management and rigging procedures from the time of receipt until they are installed in the WTP facility.

Project receiving procedures include:

- Initial receipt inspection of materials, components and equipment
- Generation of documentation for identified unsatisfactory conditions or damages
- Identification of any special receipt handling or storage requirements
- Proper identification of materials, components or equipment

Project rigging procedures will:

- Assure that tanks and equipment are lifted in accordance with manufacturer's instructions
- Assure that rigging equipment is periodically examined and that required maintenance has been performed to assure proper function.
- Assure that rigging equipment is of sufficient rating to perform the lift

During construction, measures will be taken to prevent damage as a result of the installation of other facility features or commodities.

2.2 Installation and Inspection

Installation of components will be controlled by work packages. Special instructions will be included in the work packages for installation requirements that are not considered "skill of the craft". Process control sheets for activities such as welding will be included, and with the special instruction sheets will constitute the documents of installation. Inspections will be performed and documented to the current design at the time of inspection. Current design is constituted by documents "issued for construction", these include, but are not limited to:

- Vendor drawings
- Vendor installation manuals
- Vendor rigging instructions
- Piping isometric drawings
- Support drawings
- Equipment location drawings
- Concrete placement drawings
- Embedded plate detail and location drawings
- Instrument installation details

Inspections will be performed by persons qualified to perform the inspections. Examples of activities that will be inspected:

- Subgrade and foundation materials and compaction
- Rebar, embed, and anchor placement
- Concrete placement, cure, and finishing
- Installation of liner plate
- Installation of corrosion protection systems
- Placement of shop and field fabricated tanks
- Welding
- Piping/component supports
- Receipt inspection of material, components, and equipment

Records will be reviewed for accuracy and completeness. Retention of Records and documentation will be performed in accordance with PDC controls and procedures.

2.3 Testing

Tightness testing will be performed in accordance with the code applicable to the component. Testing will be performed and inspected by persons competent in the performance of hydrostatic or pneumatic testing. Testing will be documented to assure that the system/component was pressurized for the prescribed period and fully inspected for leakage.

2.4 Independent Inspector

In accordance with WAC 173-303-640(3)(c), an independent qualified installation inspector or registered professional engineer will inspect the tank systems for the presence of:

- Weld breaks
- Punctures
- Scrapes of the protective coatings
- Cracks
- Corrosion
- Other structural damage or inadequate construction/installation

The independent inspector will be required to submit a report certifying each tank system prior to the system being placed into service. Installation documentation including, but not limited to, the following types of information will be available to the inspector for preparation of the report and will be available at Project Document Control for review.

- Field installation instructions
- Approved welding procedures
- Welder qualifications and certifications
- Hydrotest reports in accordance with the codes specified by design
- Tester credentials
- Inspector credentials
- Field inspector reports
- Field waiver reports
- Non-compliance reports and corrective action (including field waiver reports) and repair reports

2.5 Summary

Secondary containment, tanks, and tank ancillary equipment will be installed in accordance with the applicable engineering documents and manufacturer's installation instructions. Special instructions for installation requirements that are not "skill of the craft" will be provided in a work package developed from the engineering documents and or manufacturer instructions. Work packages will contain documents, that when completed by the craft and quality inspectors, will document the inspections necessary to insure the quality installation of the component(s). Installation activities within a work package will include, as applicable: rigging instructions, step-by-step assembly instructions, welding procedures/conditions, coatings, pressure testing, and instructions to prevent damage to the component during construction and startup. Installation activities will assure that required inspections by construction inspectors and independent inspectors are performed before the work to be inspected becomes inaccessible.